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TekResults Newsletter (January 2025)

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Dear Clients and Friends

Here we are at the beginning of a brand-new year. We hope the holidays provided some nice memories to keep you warm as we enter the colder months. We are now anxiously counting down the days till spring. In the meantime, we present you with this newsletter, filled with our observations and recommendations.

In this newsletter

- An amazing new way to analyze your photos with Google's Vision API
- Walmart buys Visio
- Windows 10 end of life is coming
- A brief look at the difference between modems, routers and gateways
- Recommendations for upgrading your Wi-Fi

Computer sale!

With Windows 10 quickly approaching the end of its supported life, now is an excellent time to replace those aging computers. We have many desktops and laptops in stock! We specialize in refurbished Dell systems that look great and come nicely appointed with a solid-state drive, at least 16GB memory (we can add more if necessary) and an Intel Core i5 or i7 processor. We bench test each of our systems to ensure they are working in top-notch order before presenting them for sale, and each one comes with our 30-day warranty, and we normally have replacements and spare parts on hand if there are problems. All of our systems feature Windows 11 Pro. Drop us a line and we can help you find just the right system to put under your tree.

Referrals

TekResults owes much of its success to our loyal and enthusiastic clients. It's those of you who tell your friends about us that keep our company growing, and we'd like to say thanks. Just telling someone about us is all it takes. Just let us know you dropped our name, and we'll drop a gift card in the mail. See, who said talk is cheap!

Businesses Who Need Our Referrals

- Any business who has slow computer systems
- Any business who has slow network

Any business needing a better disaster recovery strategy including backups for mission-critical devices (servers, essential PCs, etc.), equipment redundancy,
Any business requiring help upgrading existing IT infrastructure due to obsolescence
Any business that needs better email services
Any business that needs to migrate to a new software platform
Any business that needs help with its industry vertical market software
Any business that has employees and compliance questions
Any business that needs help with employees working from home
Any business that needs reliable IT service
Any business that is purchasing another business and needs IT help
Any business that is being sold or is being dissolved
Any business with human resource issues as they pertain to IT
Any business that wants to save money and improve functionality by utilizing a VoIP Business phone systems
Any business needing a better security infrastructure
Any business needing remote desktop applications
Any business needing help migrating to Microsoft 365
Any business that would benefit from monitoring of performance, security, etc. of their IT infrastructure
Any business that would like an IT department that will visit and report on each device on a scheduled basis
Any business that would like to read our newsletter or other mail tips and blasts

What's in a picture

That's what Google's Vision API wants to show you.

Look at the picture below. What do you see? What can you surmise from the picture? Make a mental note and compare it to the description below the picture. Did you see everything in the description?



The foreground features a Golden Retriever dog, prominently displayed, wearing reindeer antlers and a festive bandana. It's sitting on a dark gray asphalt driveway. The background shows a blurred-out green lawn and more of the driveway extending into the distance. The overall setting appears to be a residential area, perhaps a backyard or front yard.

The dog seems happy and content, its facial expression conveying a sense of cheerfulness. The image appears to have been captured by a NIKON CORPORATION NIKON D90 camera on December 24th, 2011, at 2:28 PM. The dog's breed, coloring, and festive attire suggest a middle-class family pet, cared for and valued by its owners, engaged in a fun holiday activity. **The dog's tongue is slightly visible, indicating it may have just panted.**

The slight shadow under the dog's chin suggests the sun is somewhat high in the sky. The dog's fur shows subtle variations in color and texture, implying it may have recently been groomed, and there is a tiny bit of what looks like a dirt spot or a very small leaf on its fur near its neck. The antlers appear to be soft, and the bandana's pattern is relatively detailed.

Google Vision API

The description above is an analysis of the picture, performed by Google Vision API. Photos reveal a lot of information, most of it we are not consciously aware of. Want to try it yourself? Visit <https://theyseeyourphotos.com/> and drag a photo onto the web page. You'll be amazed at how much can be gleaned from a simple photo!

They see your photos.

Your photos reveal **a lot** of private information.

In this experiment, we use [Google Vision API](#) to extract the story behind **a single photo**.

See what they see.

x



The photo shows a golden retriever sitting patiently at a table outside a restaurant in Annapolis, Maryland. The foreground features a grey table with two bottles of Coors Light, a plate of french fries with ketchup, and an empty plate. The background consists of a light blue brick wall, a dark blue window frame reflecting the street and some people, and other outdoor seating.

A golden retriever is the main subject, appearing calm and possibly waiting. The dog seems well-cared for. Two partially visible people are reflected in the window behind. The picture was taken at 5 PM on May 13th, 2017, with an Apple iPhone 6s. It appears to be a casual scene in a relaxed atmosphere.

The subtle wear and tear on the table's edges are indicative of regular use. Also, a tiny speck of ketchup is visible near the fries.

[Spread the word](#)

Walmart in your living room!?

You bet! Walmart just spent \$2.3 billion to buy Vizio. Why? Because they want to put their ads right in your living room, track what you watch and sell your data. Over 19 million people use Vizio's SmartCast system.



After announcing plans to acquire Vizio in February 2024, Walmart officially owns the company after the \$2.3 billion transaction closed on Tuesday December 3. The retail giant says the acquisition will help bolster its advertising business, as Platform Plus — the TV-maker’s advertising and data division — “accounts for all the company’s [Vizio’s] gross profit.”

All that data will be a boon for Walmart’s growing advertising business, which has already started leveraging shopper information to target ads on Disney Plus and Hulu. The move will likely open more opportunities for Walmart to sell more ads on Vizio TVs in stores, something it talked about expanding earlier this year, and maybe even stick ads on the Vizio TVs in people’s living rooms.

The deal has raised concerns among privacy advocates, as Vizio has gotten in trouble over advertising and data tracking in the past. In 2017, it paid a \$2.2 million fine to settle a Federal Trade Commission lawsuit that accused it of tracking viewers without their consent.

An acquisition by Walmart could help Vizio compete with other budget-friendly TV brands that rely on advertising as a significant source of revenue. Roku, which started selling its own TVs last year, made \$908.2 million in advertising sales and subscriptions in the third quarter of 2024, with an average revenue per user of \$41.10, while Vizio’s last earnings report showed it was making about \$37.17 per user.

There’s also Amazon’s ad-friendly Fire TVs, Telly — the company that promises free TVs in exchange for showing persistent advertisements, and an incoming platform from advertising firm The Trade Desk that Sonos will use.

Despite the acquisition, Walmart and Vizio will continue operating independently “for the foreseeable future.” Vizio CEO William Wang will also remain in his position.

“VIZIO has also expertly changed their business over time, like building and quickly scaling a profitable advertising business,” Seth Dallaire, the executive vice president and chief growth officer of Walmart US, said in the announcement. “Pairing it with Walmart Connect will be impactful and allow us to invest in our business even further on behalf of our customers.”

Yes, your smart TV is spying on you – Here's how to stop it

Smart TVs are big money savers compared to other tech on the market. They include built-in apps that can save you from buying streaming devices like a Roku or Fire TV Stick.

As with any smart technology, there's a price to be paid for the convenience. In return for an always-connected experience, smart TVs collect data on users — a lot of it.

You won't believe how your smart TV is not just gobbling up your viewing data. In some cases, it's also gathering information about your home. This guide will walk you through how to opt out of this data collection so you can return to bingeing your favorite shows in peace.

Turn off your smart TV's tracking features

Can you minimize your smart TV's snooping activities? Yes. Our advice: Turn off its tracking features — especially Automatic Content Recognition (ACR).

What is ACR, and how do you turn it off? It's a visual recognition feature that can identify every ad, TV show or movie you're playing on your TV. This includes streaming boxes, cable/over-the-air TV and even DVD and Blu-Ray players. This data is collected and can be used for marketing and targeted advertising purposes. If this sounds too creepy, there are ways to turn it off. The exact methods will depend on your TV's brand.

Vizio

You can turn off your set's ACR features if you own a Vizio smart TV. Here's how:

On older Vizio TV sets that use Vizio Internet Apps (VIA), go to the TV's **System** and then: **Reset & Admin > Smart Interactivity > Off**.

On Vizio smart TVs that use the newer SmartCast system, go to **System > Reset & Admin > Viewing Data > toggle it to Off**.

Samsung

Some Samsung smart TVs include voice control. If you're concerned about privacy, you can completely turn off voice control, ACR and ad tracking.

On newer Samsung sets, go to **Settings > Support** and scroll down to **Terms & Policies**. Here you can turn off **Viewing Information Services** (Samsung's ACR technology), **Internet-based Advertising** (for personalized ad tracking) and **Voice Recognition Services**.

On older Samsung smart TVs, go to the **Smart Hub** menu > **Settings > Support** and look for **Terms & Policy**, then disable **SyncPlus and Marketing**. You can disable **Voice Recognition Services** in this section, too.

Remember that turning off your Samsung TV's Voice Recognition Services will disable its voice commands.

LG

LG's ACR technology is baked into its newer WebOS-powered smart TVs, known as **LivePlus**. To turn this off, go to **Settings > All Settings**, then scroll down to **General** to a setting called **LivePlus** and toggle it **Off**.

To limit other forms of data collection on your LG smart TV, go back to **Settings > All Settings** and scroll down to **General > About This TV > User Agreements** and toggle **Personalized Advertising** to **Off**.

Amazon Fire TV

Amazon's Fire TV platform is baked into some smart TVs. Although Amazon said it does not use ACR to identify content on Fire TV Edition TVs, it can still collect data about the over-the-air channels you watch and the streaming apps you use.

To turn this off, go to your TV's **Settings > Preferences** and scroll to the "**Right to Privacy Settings**." Turn off the setting labeled "**Collect App and Over-the-Air Usage Data**." You can also turn off **Interest-based ads** in this section.

Roku TV

On Roku-powered smart TVs, you can turn off ACR by going to **Settings** and scrolling down and selecting **Privacy > Smart TV Experience**.

Next, uncheck "**Use Information for TV Inputs**" to disable ACR. Although this will stop your Roku TV from identifying your content on the pixel level, Roku can still collect data about the Roku TV streaming channels you've installed and used.

To prevent personalized ads on your Roku profile, go to **Settings > Privacy > Advertising**, then check "**Limit ad tracking**." Note: This setting is also available on Roku streaming gadgets.

Some Microsoft products are reaching the end of their lives

October 14, 2025 – Windows 10

On this date, Windows 10 Home and Pro follows Microsoft's Modern Lifecycle policy and will reach end of their supported life. The current version, 22H2, will be the final version of Windows 10, and all editions will remain in support with monthly security update releases through that date.



What does that mean to me?

When support ends in October 2025, Windows 10 will still function, but will no longer receive fixes, new features, or security updates. You will still be able to use Windows 10, but as time goes on, your system will become more and more susceptible to viruses and malware and may develop other, unforeseen issues. Many users will be able to continue without switching to Windows 11, but those who work in government or health professions and must adhere to HIPAA or government-mandated security policies, will not. For those people, continuing to use an unsupported operating system will constitute a policy violation.

What can I do

Many Windows 10 users can take advantage of Microsoft's free upgrade to Windows 11. The easiest way to find out if your system can be upgraded is to download and run the [PC Health Check app](#). Hint: There is a link to the download in the section **How to download the PC Health Check app**.

Some computers cannot be upgraded to Windows 11 because their hardware is too old. Older computers, those with Intel chip sets older than 8th generation, will not qualify. You really don't need to know anything about chip sets, just run the PC Health Check app and it will tell you if your system meets the requirements.

If your system can't be upgraded, all is not lost. The data on your old system can probably be migrated to a newer system and upgraded to Windows 11. We don't recommend doing this yourself, and TekResults is available to help. We have some a nicely appointed, refurbished Dell computers in stock for around \$400. Laptops too! Figure an hour of our time to do the transfer and you're back in business! Give us a call and we can help diagnose your system and make some recommendations.

October 14, 2025 – Office 2016 and Office 2019

Yes, the date that support ends for Windows 10 also signals the end of support for Office 2016 and Office 2019. Office versions older than 2016 are already out of support.

What does end of support mean?

After Office reaches its end of support, Microsoft no longer provides the following services:

- Technical support for issues
- Bug fixes for issues that are discovered
- Security fixes for vulnerabilities that are discovered

Because of these changes, we strongly recommend that you upgrade to a supported version of Office as soon as possible. Your Office product will continue to work for some time after it's end of support date, but just like Windows 10, without security updates, it will make your system more and more susceptible to malware.

Unsupported software is of special concern to those who fall under HIPAA guidelines. HIPAA requires that all software is supported by its manufacturer.

Microsoft 365

Up until a few years ago, the only way to purchase Office was as a standalone installation for your computer. Buy it once, install it, and it will never change. Then, each time Microsoft released some new version of Office, or new web-based service, the standalone version got left farther and farther behind, unable to employ any of the new features. Today, if you are still running Office 2016, your version of office hasn't changed in nine years and you are missing a lot!

By upgrading to Microsoft 365, a subscription-based service, you can plug into the constantly evolving world of Internet-based tools, such as

- OneDrive to back up and store your documents in the cloud, making your files accessible from any computer you use.
- SharePoint to share documents and collaborate with coworkers or friends
- Online versions (as well as desktop versions) of popular office apps such as Word, Excel, Outlook and PowerPoint.
- Microsoft Teams
- And best of all, your version of Office will always be up to date, receiving new features and improvements each time they are released.

Tekresults has helped hundreds of customers transition from their old versions of Office to Microsoft 365. Give us a call to discuss the possibilities!

Other Microsoft products reaching the end of their support in 2025

[Here is a list](#) of other products biting the proverbial dust this year. Don't worry if you don't recognize some of them. Microsoft's a big company with lots of products!

Modems, routers, gateways and access points

Summary

A modem provides the connection between the Internet and your home network. A router allows multiple devices on your home network to connect to the Internet simultaneously and ensures that Internet traffic is directed to the correct devices on the local network. An access point allows wireless devices to access the network without being physically close to the source.

What Is the Difference Between a Modem and a Router

Your router creates a network between the computers in your home, while your modem connects that network---and thus the computers on it---to the internet. When you connect to Wi-Fi, you're really connecting to your router, which forwards traffic between the modem and your computer. Many internet providers offer a combined modem/router unit that performs both these functions in one device.

What does a modem do

A modem is the connection between your house or business and the internet. It receives signals from your internet service provider. A modem, by itself, typically connects one computer to the Internet and does not support connecting multiple computers, nor does it provide a wireless connection. A modem does not require a router to function because it can support a wired connection on its own. Regardless of what internet service you have — fiber, cable, satellite, or fixed wireless internet — you'll have a modem; however, if you intend to connect multiple devices to the Internet, you will need a modem as well as a router.

What does a router do

A router is the connection between your modem and your devices. In a business or in a location where someone has wired the building to provide wall jacks for network cables, you can connect your PC to a wall jack, and wiring hidden in the walls and ceiling will carry your network data back and forth to the router. For wireless devices, your router creates a sort of Wi-Fi bubble around the building, wherein your smart phones, laptops and smart home devices can connect without the use of cables. At its most basic, a router works like a traffic cop, directing network traffic between devices on the network and facilitating the connection of those devices to the modem and the Internet, when needed.

Not all network traffic needs to access the Internet. If your network has a server, the day-to-day chores of saving and retrieving data from the server will all be done in-house with no need to access the Internet. If you have QuickBooks or some other server-based app, no Internet access is needed. Your router manages these connections between your devices and the server and only forwards network traffic to the modem when the Internet is the destination.

If you're thinking, "I use Wi-Fi but I don't have two separate devices..." you probably have what's called a gateway. This is especially likely if you lease your equipment from your internet service provider.

What does a gateway do

A gateway is a hybrid router and modem. The router and the modem are both housed in a single, physical piece of equipment — meaning you have less to set up. If you've switched internet service providers relatively recently and leased equipment, it's a pretty safe bet you're using a gateway. It can also be easier to reset your gateway when experiencing issues because you only have to restart one piece of hardware — and you only have to deal with one company. If you're leasing equipment from your internet service provider, customer support for it is likely built in.

Wi-Fi: Easy Upgrade Tips and Tricks

Wi-Fi, or wireless fidelity, has become integral to our daily lives. A reliable and fast internet connection is essential for work, entertainment, or staying connected with loved ones. However, keeping your Wi-Fi network current is essential to ensure optimal performance as technology advances.

This article will explore easy tips and tricks for upgrading your wireless network to enjoy faster internet speeds, broader coverage, enhanced security, and the option to connect your devices directly to the internet using an ethernet cable.

What is Wi-Fi? How does it work?

Wi-Fi is a wireless networking technology that allows devices such as computers, smartphones, and other equipment to connect to the internet or communicate wirelessly within a particular area. The name "Wi-Fi" is a play on "hi-fi" or "high-fidelity," a term for high-quality audio technology.

The standards have evolved, with newer versions offering better performance. The most recent standard is Wi-Fi 7 (also known as 802.11be), which provides faster speeds and improved capacity and performance in environments with many connected devices.

What is a Wi-Fi network?

A Wi-Fi network is a wireless local area network (LAN) that allows devices to connect and communicate without needing physical cables. They use radio signals transmitted through wireless access points to share information between devices.

Wireless router-based Wi-Fi

The most common type of wireless connection in public places is router-based. This setup uses wireless routers, which connect to internet service providers, to access the internet.

Router-based Wi-Fi networks can cover a specific area and are standard backbone components in Schools or Business networks. They allow wireless devices like smartphones, laptops, Google Home Speakers, and tablets to connect wirelessly. These networks can be password-protected, ensuring security.

Wireless mobile hotspots

Another type of connection is mobile hotspots, which use mobile devices, like smartphones running on the Android operating system, to provide wireless internet access. Mobile hotspot devices use cellular network connections to access the internet, making them ideal for on-the-go internet access in areas without reliable router-based Wi-Fi, such as airports, hotels, bookstores, and coffee shops.

Users can connect devices, such as laptops and tablets, to mobile networks, though a data plan from a mobile network provider may be required. However, it's important to note that using a mobile hotspot can significantly impact your battery life, especially if you use it for an extended period.

LTE and 5G Wi-Fi

LTE (Long-Term Evolution) and 5G (Fifth Generation) networks are wireless internet connection options that use cellular networks. LTE networks offer high-speed wireless internet access, while 5G networks provide even faster internet speeds and lower latency.

These networks are handy in areas where router-based Wi-Fi access is limited. However, devices must be compatible with LTE or 5G networks to access wireless internet.

When and why should you upgrade your Wi-Fi?

Upgrading your Wi-Fi access points should be considered when noticing issues with your current network, such as slow speeds, poor coverage, or frequent disconnections. These issues can indicate that your current access points cannot handle the increasing number of devices or the bandwidth-intensive applications being used on your network.

Furthermore, if your organization is growing or adding more [IoT devices](#) or personal information to your network, you might need to upgrade your access points to handle the increased load.

What factors affect the speed and stability of a Wi-Fi connection?

Several factors can impact the speed and stability of a Wi-Fi connection, including:

Distance between your device and the router: The farther you are from the wireless router, the weaker the signal, resulting in slower internet speeds.

Interference from other electronics: Certain devices, especially wireless signals, can interfere with Wi-Fi performance. Keep your router away from devices that emit radio waves or use similar wireless frequencies.

Number of devices connected: When multiple devices are connected to a Wi-Fi network, bandwidth is shared, potentially causing slower internet speeds.

Capabilities: Upgrading to newer access points and ICX switches with advanced features like the Ruckus Wi-Fi 7 series with tri-band support can improve speed and stability.

How can I improve my Wi-Fi signal strength?

Improving your Wi-Fi signal strength can be achieved through several strategies:

Positioning of Access Points: The placement of your Wi-Fi access points plays a crucial role in the signal strength. They should be placed in central locations and away from physical obstructions like walls and metal objects. Also, consider mounting them high up to avoid interference. Access points require a cable connected to the wired network. If this isn't possible in your environment, see **Create a Mesh Network** below.

Upgrade Your Equipment: If your Wi-Fi equipment is outdated, it may not be able to provide the signal strength you need. Consider upgrading to modern POE-based (Power over Ethernet) systems that support the latest Wi-Fi standards, like Wi-Fi 7 (802.11be).

Use a Wi-Fi Analyzer: Tools like [Metageek InSSIDer](#) can help you analyze your Wi-Fi network's performance and identify areas with weak signal strength. You can then make necessary adjustments to improve coverage.

Create a Mesh Network: Consider setting up a mesh network if you need coverage across a large area. This involves using multiple mesh nodes, or satellites, to create a network with a broad range and muscular signal strength.

Reduce Interference: Other electronic devices can interfere with your Wi-Fi signal. Keep your access points away from microwaves, cordless phones, and Bluetooth devices.

Regular Maintenance and Updates: Regularly updating firmware apps and security patches can improve the performance and security of your Wi-Fi network and reduce the chances of rogue unlicensed use.

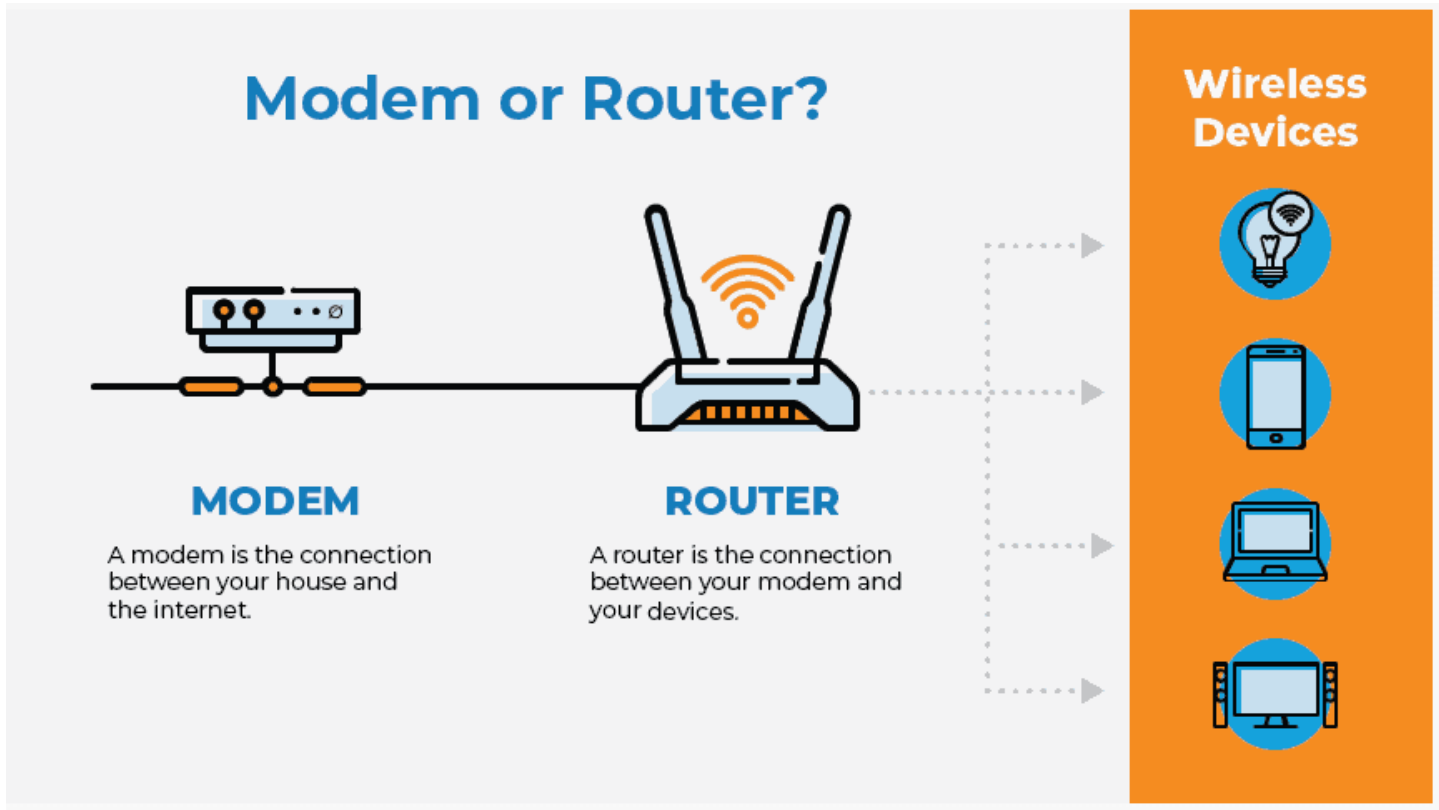
Ubiquiti Networks

We have been replacing outdated network gear with products produced by Ubiquiti Networks. We have found their products to be the best on the market for the price. We have used a lot of different network gear over the years, have had a lot of Cisco gear installed with various customers, but we've found that Ubiquiti is priced at near consumer-grade level while delivering Enterprise-level functionality and options. Ubiquiti's UniFi line of products are very flexible, allowing for the addition of routers, switches and access points that all work together to form a complete network of fast, reliable devices.

What we recommend for home

The best solution for most homes is a mesh network. We like the ease of setup and the hassle-free, solid connection that mesh provides. With a mesh network, you normally buy a kit that includes everything you need. And what do you need? You need a hub (connect this to your modem) and one or more satellites. Just place the satellites in the area of the home that needs coverage and plug them into electricity. Configuration is done through an app on your phone and takes just minutes. [Unifi's U6 Mesh](#) system would be a good choice for this.

If you'd like to learn more about the advantages of a mesh network, check out this excellent [10 minute video](#). Wired.com also has some recommendations, including several mesh systems for under \$200. [Check it out here](#).



Is a Gateway or a Router and Modem Better?

As with many things, that depends. Having a single, streamlined device — a gateway — has different advantages and disadvantages than separate routers and modems.

Gateway

Most gateways are leased from your internet service provider since they can make the customer service and troubleshooting process easier.

Modem and Router

Having a separate modem and router can make the troubleshooting process slightly more complicated. However, having two devices does allow for more customization (such as enabling firewalls) and easier equipment upgrades.

We would be happy to assess your current configuration and make recommendations. Just give us a call.